

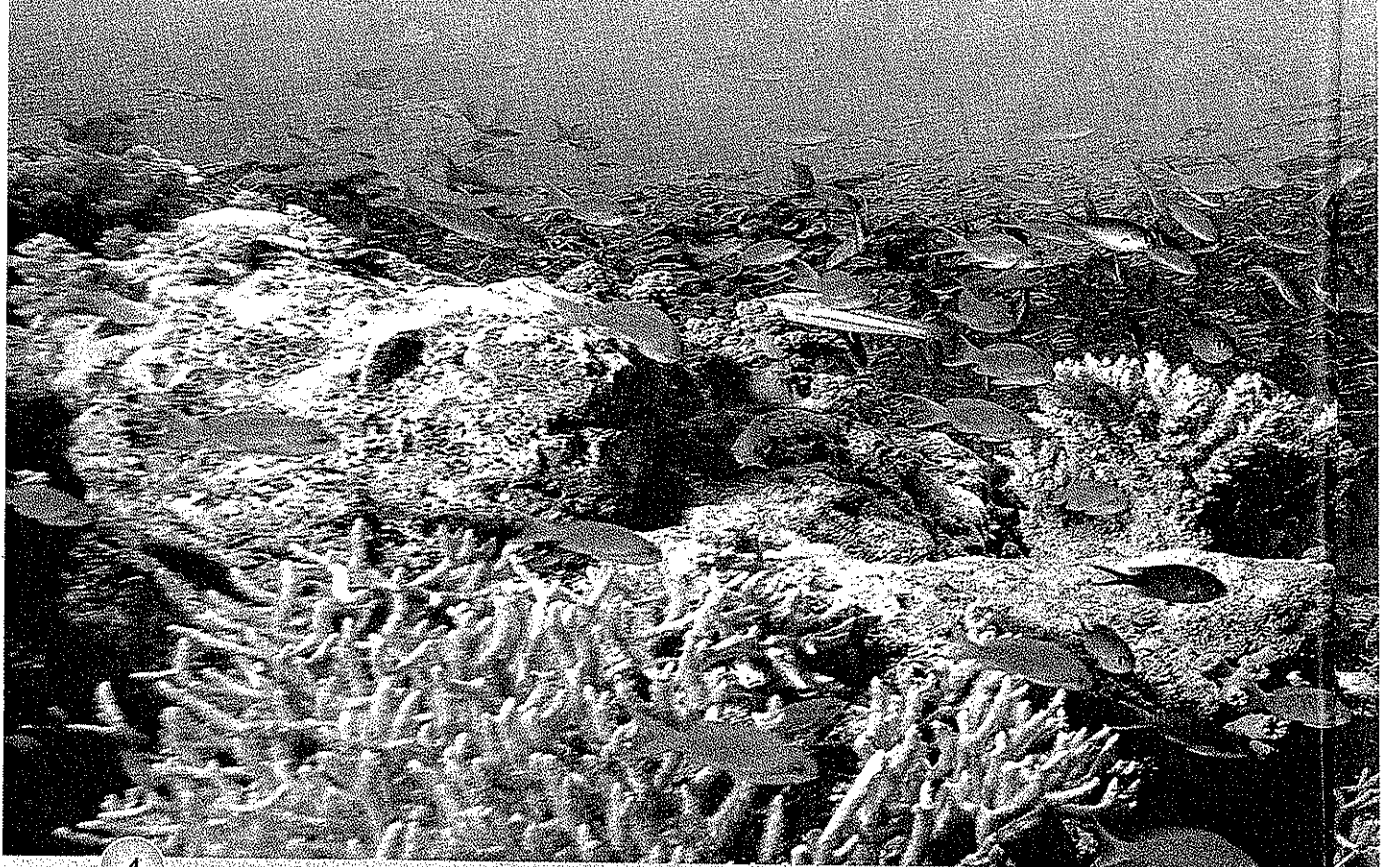
Coral Reefs and Polyps

Coral reefs are like underwater cities. They are full of energy and activity. More species of sea creatures and plants live on coral reefs than anywhere else in the ocean.

A coral reef may look like a rock formation on the sea floor. It's not. It's really made up of millions of tiny **coral polyps**. Polyps live together in huge groups. These groups make up a coral reef.



These polyps are part of a coral reef.

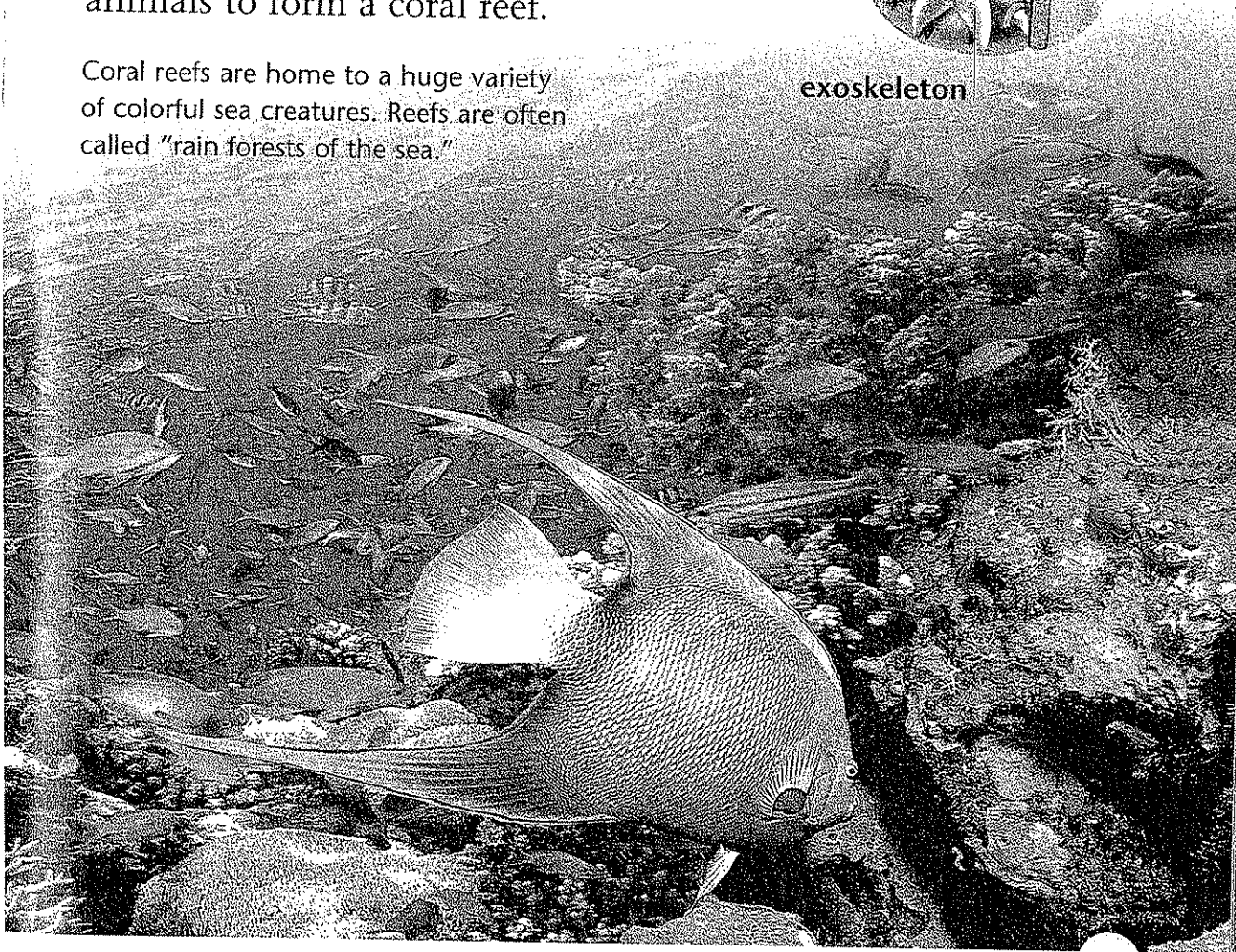
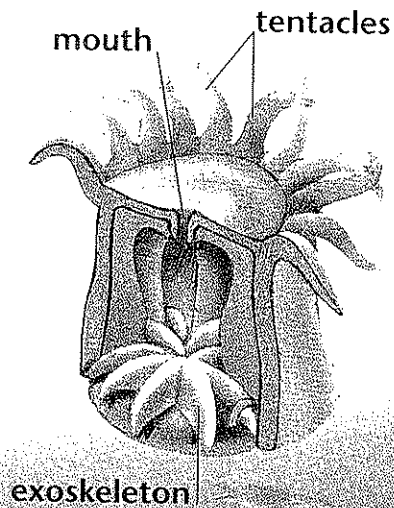


What Are Coral Polyps?

Until about 200 years ago, scientists were not sure what polyps were. Some thought that coral polyps were plants. They are actually small, soft-bodied animals. Some coral polyps grow a hard outer structure called an **exoskeleton**. Most polyps are only about one-quarter inch across. It takes millions of these tiny animals to form a coral reef.

Coral reefs are home to a huge variety of colorful sea creatures. Reefs are often called "rain forests of the sea."

Hard Coral Polyp

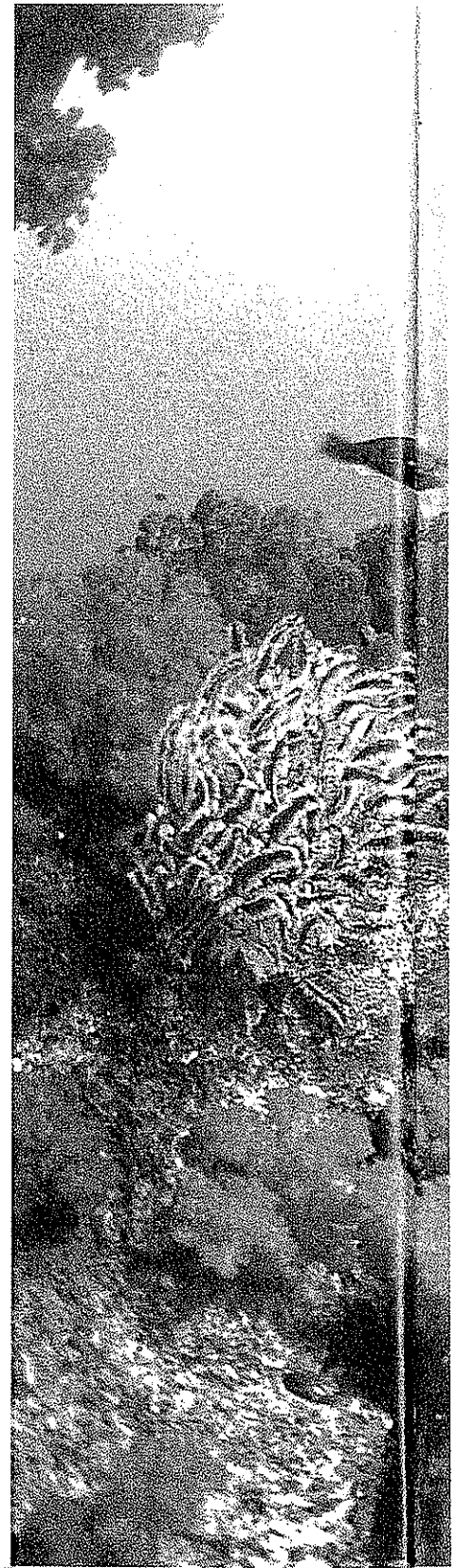
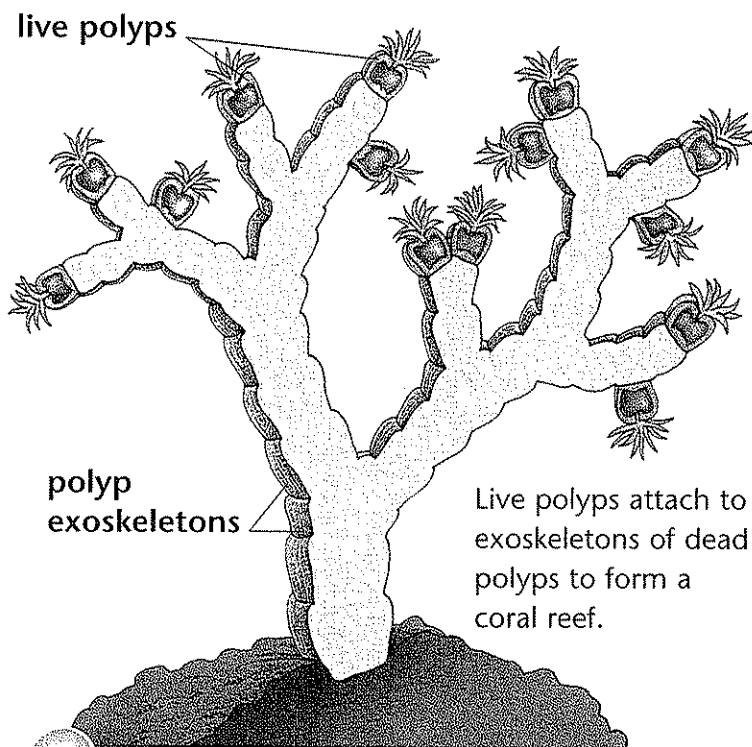


From Polyp to Coral Reef

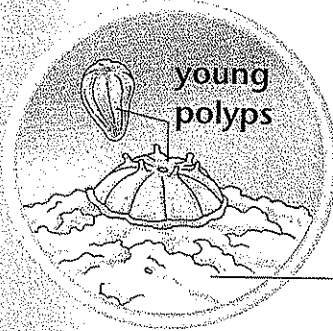
Coral polyps make up the top layer of a coral reef. The lower part of the reef is made up of polyp exoskeletons.

There are about 230,000 square miles of coral reef in the world today. It takes a long time for a coral reef to form. Studies have shown that, on average, a coral clump grows outward about an inch or so a year. At this rate, it would take more than ten years for a new clump to produce material about the size of a soccer ball.

Cross Section of a Branching Coral

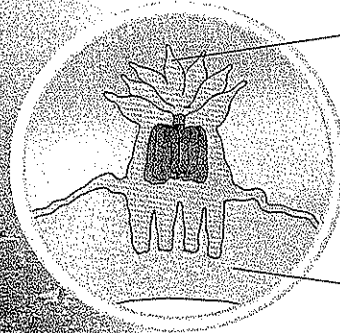


How a Coral Reef Grows



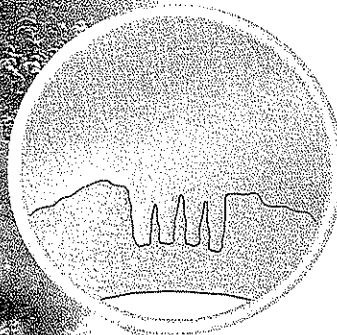
1. Young polyps attach to the sea floor.

sea floor

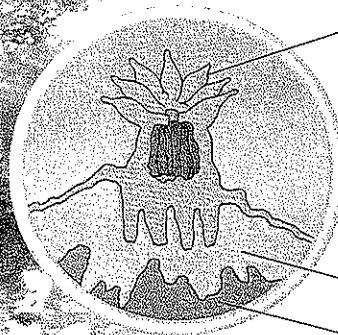


2. As the polyp grows it forms an exoskeleton.

exoskeleton



3. When the polyp dies it leaves behind its exoskeleton.



living polyp

4. New polyps grow on top and lay down a new exoskeleton. The coral reef builds.

new exoskeleton

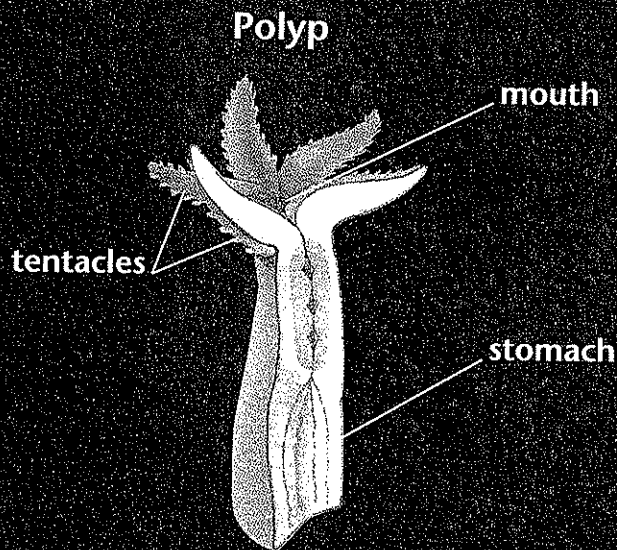
old exoskeleton

Living Polyps

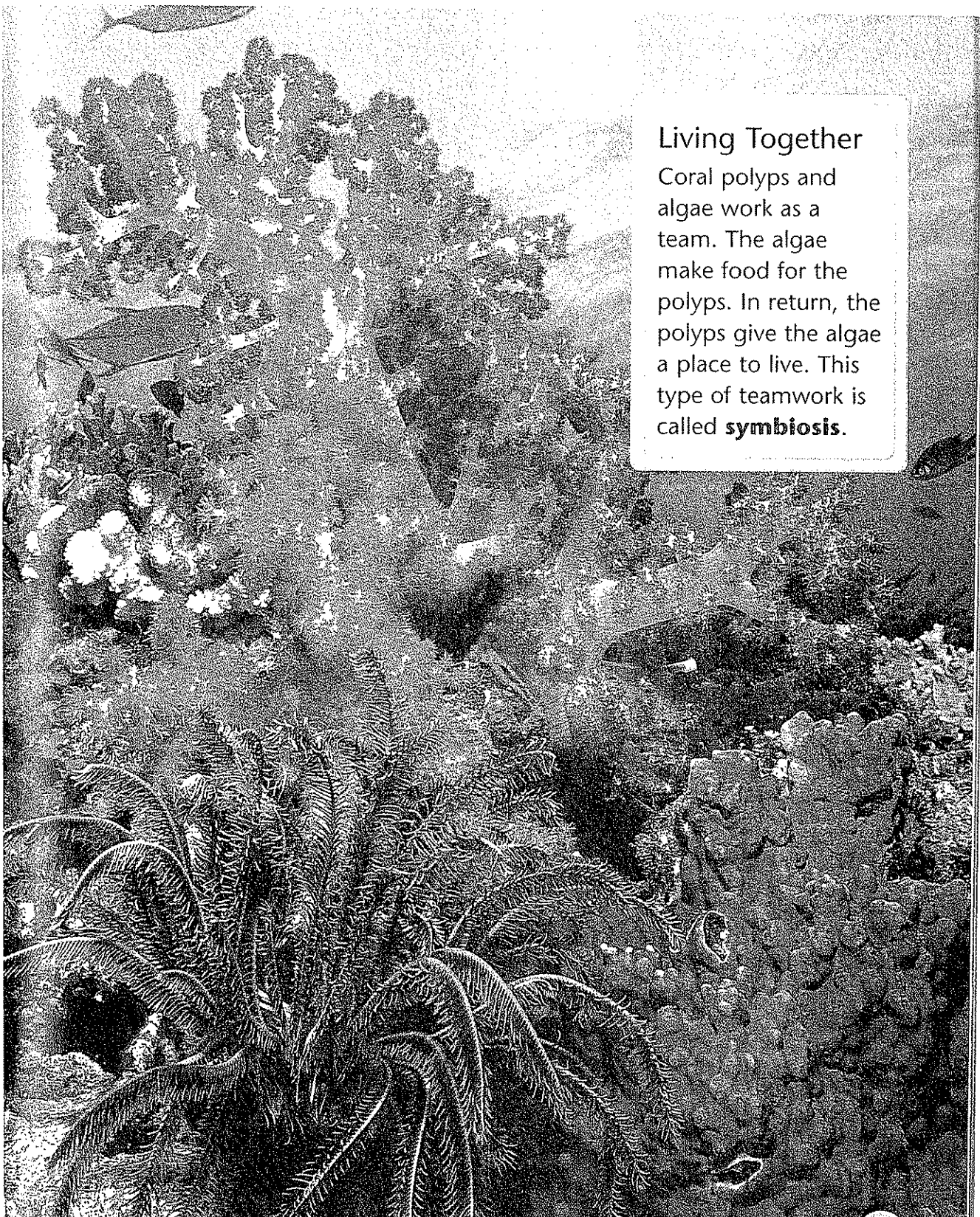
Coral reefs develop in clear, warm, shallow waters. These ocean **habitats** are rich in a variety of life forms. For a coral reef to grow, polyps need food. However, polyps can't freely move about to get food. Instead, they use their **tentacles** to catch food as it floats by.

Polyps eat **plankton**, which is made up of many different kinds of tiny sea plants and creatures that float in the shallow ocean. A polyp first stings the plankton with its tentacles. It then pushes the plankton into its mouth.

Some polyps also get food from **algae** (AL-jee), a kind of plantlike plankton. Some forms of algae actually live inside the bodies of coral polyps.



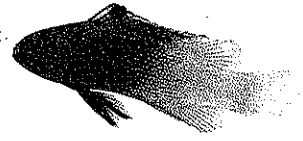
A polyp uses its tentacles to push food into its mouth and down to its stomach.



Living Together

Coral polyps and algae work as a team. The algae make food for the polyps. In return, the polyps give the algae a place to live. This type of teamwork is called **symbiosis**.

Glossary



algae	plantlike creatures that grow in the water and use sunlight to make food
atoll reefs	ring-shaped reefs around a lagoon
barrier reefs	reefs along the shore that are separated from the land by a lagoon
camouflage	a disguise to blend with the surroundings
coral polyps	individual coral animals
coral reefs	platforms or ridges of coral at or near the ocean surface
exoskeleton	a hard outer covering supporting an animal's insides
food chain	the passing of food energy between members of a community of living things
fringing reefs	reefs that form along shorelines
habitats	places where animals and plants live together
lagoon	an area of shallow water separated from the sea
parasites	creatures that benefit by living in or on other creatures, which they harm
plankton	tiny plants and animals floating in the ocean
predators	animals that hunt and kill other animals for food
scavengers	animals that eat dead animals
symbiosis	a partnership that benefits two different kinds of living things
tentacles	long, flexible body parts, such as octopus arms
test	a hard external covering on certain animals, such as sea urchins